

## ABSTRACT OF THE DISCLOSURE

A polymeric positive temperature coefficient (PTC) thermistor having a particular crystalline structure to allow the resistivity of the crystalline polymer to return to its approximate original level after an overcurrent is applied thereto. Subjecting a polymer to cross-linking, heating the cross-linked polymer at a temperature of a melting point of the polymer or above the melting point of the polymer, and re-crystallizing the heated polymer forms the particular crystalline structure. By doing so, the cross-linking rate of the crystalline polymer is maximized, and the size of the crystals in the crystalline polymer is minimized. Also, the polymer layer having electrodes thereon are cut into units of a desired size before setting and/or hardening thereof, to minimize to formation of irregularities such as stress fractures, microscopic cracks, and the like.